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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SCHECHTER, ANDREW M

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 03/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/848,642

Applicant(s)

YAMAZAKI ET AL.

Examiner

Andrew Schechter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to:
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Electro-optical device with light shield comprising laminated colored layers".

Claim Objections

2. Claims 5, 17, and 20 are objected to because of the following informalities:
Claims 5 and 17 recite "an opposing substrate", without identifying a first substrate which it opposes. For examining purposes, "an opposing substrate" is assumed to be the substrate without the switching element. In claim 20, "connected" should be "are connected to". Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4, 13-16, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by *Miyazaki et al.*, U.S. Patent No. 5,757,451.

Miyazaki discloses [see Fig. 2, for instance] an electro-optical device comprising light shielding portions comprising a lamination of a first (blue) colored layer [58B] and a second (red) colored layer [58R] formed overlapping a channel region [54] of switching elements. Claims 1-3 are therefore anticipated. The light shielding portion is on the substrate with the switching elements, so claim 4 is also anticipated.

There are a plurality of pixel electrodes [61], and the light-shielding portions cover regions between adjacent pixel electrodes, so claims 13-16 are also anticipated. The pixel electrodes are connected to a TFT, and the light shielding portions overlap channel regions of the TFT, so claim 20 is also anticipated.

5. Claims 1-4, 6, 7, 13-16, and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by *Okubo et al.*, U.S. Patent No. 4,470,667.

Okubo discloses [see Figs. 3, 4, 11, and 12, for instance] an LCD with light-shielding portions comprising a lamination of red and blue colored layers, overlapping a channel region of a TFT on the same substrate [see Fig. 12]. The pixel electrode [4] is connected to the TFT and is made of a transparent conductive film for a transmission-type device [col. 6, line 31], the device is used in a personal computer [see Figs. 3-4], and covers regions between adjacent pixel electrodes, so claims 1-4, 6, 7, 13-16, and 18-20 are anticipated.

6. Claims 1-3, 5, 8-10, 13-15, 17, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by *Nagayama et al.*, U.S. Patent No. 5,680,187.

Nagayama discloses [see Fig. 1] an LCD with light-shielding portions comprising a lamination of red [46R] and blue [46B] colored layers, overlapping a channel region of

a TFT on the opposing substrate. The light-shielding portions are between adjacent pixel electrodes, which are connected to the TFTs. Claims 1-3, 5, 8-10, 13-15, 17, and 20 are therefore anticipated.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 6, 7, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Miyazaki et al.*, U.S. Patent No. 5,757,451.

Regarding claims 6 and 18, *Miyazaki* discloses that the device is an LCD with transparent substrates 51 and 71, but does not explicitly state that the device is transmission-type with a transparent conductive film for the pixel electrode. The examiner takes official notice that it would have been obvious to consider the device a transmission-type LCD and to use ITO (indium tin oxide), a transparent conductive film, for the pixel electrodes, since this is well-known and conventional in the art, motivated by the well-known properties of ITO and the excellent brightness possible with a transmission-type LCD.

Regarding claims 7 and 19, *Miyazaki* does not explicitly disclose the recited use of its LCD panel, but it would be obvious to one of ordinary skill in the art to use it in any

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of the well-known and conventional devices recited, for instance as the screen in a personal computer, motivated by the usefulness of these devices with such LCD panels.

9. Claims 6, 7, 11, 12, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Nagayama et al.*, U.S. Patent No. 5,680,187.

Regarding claims 6, 11, and 18, *Nagayama* discloses that the pixel electrode is a transparent conductive film, but not explicitly that the device is transmission-type. The examiner takes official notice that it would have been obvious to consider the device a transmission-type LCD and to use ITO (indium tin oxide), a transparent conductive film, for the pixel electrodes, since this is well-known and conventional in the art, motivated by the well-known properties of ITO and the excellent brightness possible with a transmission-type LCD.

Regarding claims 7, 12, and 19, *Nagayama* does not explicitly disclose the recited use of its LCD panel, but it would be obvious to one of ordinary skill in the art to use it in any of the well-known and conventional devices recited, for instance as the screen in a personal computer, motivated by the usefulness of these devices with such LCD panels.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Schechter whose telephone number is (703) 306-5801. The examiner can normally be reached on Monday - Friday, 9:00 - 5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on (703) 305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-4711 for regular communications and (703) 746-4711 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


Andrew Schechter
March 5, 2003


TOANTON
PRIMARY EXAMINER

